

REMARKS

The present amendment is submitted in an earnest effort to advance this case to issue without delay.

1. The priority claim acknowledgment in paragraph 12 of PTOL-326 is appreciated.

2. Applicants have taken note of the fact that the earlier objection to the specification and claims and the rejection of claims under 35 USC 112, first paragraph have been withdrawn.

3. The claims in the case have been amended to eliminate the rejection under the second paragraph of 35 USC 112. For example, in claim 13 it is no longer required that the housing be open from two opposite sides.

With respect to claim 14, clarifying terminology has been used. The upper and lower ends of the crucible have been defined. In claim 18, it has been made clear that the gas containing carbon oxides is what has been entrained with the carrier gas.

Withdrawal of the rejection under 35 USC 112, second paragraph is requested.

4. Claim 9 has been amended to specify that the graphite crucible is received in a vacuum-tight quartz glass housing (5). Claim 10 has been cancelled as superfluous and claims 11 to 13 are now all dependent on claim 9. Claim 14 remains dependent upon claim 13 and claim 18 has been retained.

5. The original claims in the case have been rejected under 35 USC 102(d) as anticipated by Atkinson.

At page 6 of the specification, it is clear that the quartz glass housing has been selected since it is inert under the conditions which result when the solid sample is, for example, a silicate and the oxygen thereof is to be combined with the carbon of the graphite crucible. The housing under those conditions provides no exchange of oxygen atoms at the high temperatures of the quartz glass.

The Examiner has applied the Atkinson reference under 35 USC 102 and Glavin et al under the same section of the statute. At col. 2, line 59, the reference does provide a graphite mold and its

copper which contacts that mold. The reference therefore does not have, in the words of claim 9 "an apparatus for liberating oxygen isotopes from oxygen-containing solid" nor does it have, in the words of claim 9, "an induction heating source which heats an oxygen-containing solid in the crucible, there being no oxygen-containing solid in the graphite mold of the reference."

Furthermore, the reference to a transparent fused silica envelope in Atkinson is not a teaching of quartz glass although quartz glass is certainly a silica based product. The reference, therefore, is not anticipatory of claim 9.

The Glavin reference provides a crucible made from graphite in a jacket of a vacuum furnace defined as a quartz water cooled induction furnace. Indeed, there is a crucible here which is made from graphite, is degassed, and serves to assist in melting a sample without any indication that the sample will react with the graphite.

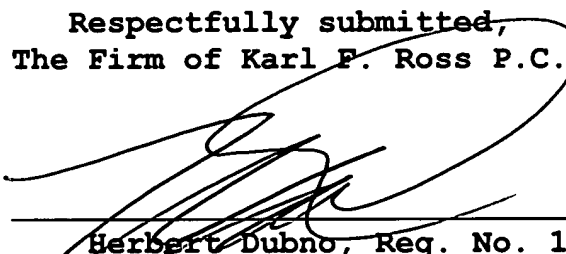
There is no teaching of a crucible which contains an oxygen-containing solid in this reference either.

Applicant appreciates the Examiner's argument that while the apparatuses of Glavin and Atkinson may be used for different

purposes from that of the apparatus of the invention, the claims are anticipated by them. But, the claims are limited to a structure in which an oxygen-containing solid is contained in the crucible in the quartz-glass housing and that is certainly not anticipated by a reference which melts metal to release gases without any teaching of reaction with the graphite crucible. Neither Atkinson nor Glavin anticipates the invention as it is now defined.

Claims 9, 11 to 14 and 18 are thus deemed to be allowable and an early notice to that effect is earnestly solicited.

Respectfully submitted,  
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